are using tower type boilers with or without boiler drums.

(c) and (d) Fluidised bed Combustion (FBC) technology is in a developmental stage. Units sizes of over 70 MW have been installed abroad using this technology and based on low ash coal. The technology has yet to be proven commercially for our coals.

Hydro-Projects in Orissa

2808. SHRI RAHASBIHARI BARIK: Will the Minister of POWER be pleased to state:

(a) whether Government propose to enhance generation of power through hydro-projects;

(b) if so, the steps taken in this regard in Orissa during the last three years; and

(c) the details of present position of the hydro-projects in that State?

THE MINISTER OF STATE IN THE MINISTRY OF POWER (SHRI P.V. RANGAYYA NAIDU). (a) Yes, Sir. The Eighth Five Year Plan envisages a capacity addition of 9282 MW through hydro power Projects.

(b) During the last three years, hydro capacity of 130 MW has been added in Orissa which includes Rengali State-II (IIIrd Unit) of 50 MW and Upper Kolab Stage-II of 80 MW.

(c) The Present installed capacity of hydel sector in Orissa is as below:—

(As on 30.4.1994)

1.	Hirakud-I	235.50
2.	Hirakud-II	72.00
3.	Balimela	360.00
4.	Rengali	250.00
5.	Upper Kolab	320.00
		1237.50

The following four hydro-electric projects aggregating to an installed capacity of 735 MW are under construction in Orissa:—

S.No.	Name of Project	Installed Capacity (MW)	Expected date of commissioning
1.	Upper Indravati H.E. Project	600 (4 × 150)	1996-97
2.	Potteru HEP (PH. I&II)	6 (2×3)	1994 12/94
3.	Balimela HEP	120 (2×60)	9th Plan
4.	Bargarh Canal HEP	9 (3×3)	9th Plan

Power Engineers Training Society

2809. SHRI V. RAJESHWAR RAO: DR. SHRIKANT RAMCHANDRA JICHKAR:

Will the Minister of POWER be pleased to state:

(a) what are the functions of the Power Engineers Training Society (PETS) of Nagpur in Maharashtra,

(b) the total amount of annual grant given to it;

(c) whether it is really serving the purpose for which it was created;

(d) what is the necessity of PETS when better training facilities are available in Universities, Engineering Colleges and other institutions; and

(e) whether evaluation of the work of PETS is done, if so, the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF POWER (SHRI P.V. RANGAYYA NAIDU): (a) The Nagpur Institute of the Power Engineers Training Society (PETS), now known as National Power Training Institute (NPTI), is engaged in imparting training in the field of operation and maintenance of power stations, and all other aspects of electrical energy systems, including transmission and distribution, to engineers, operators, technicians and other personnel of power sector.

(b) The annual grant released to NPTI

during 1993-94 under Plan was Rs. 295.56 lakhs and under Non-Plan Rs. 226.97 lakhs, out of which Rs. 82.30 lakhs under Plan and Rs. 63.50 lakhs under non-plan are allocated to the Nagpur Institute.

(c) Yes, Sir.

(d) Knowledge gained in the Universities, Engineering Colleges etc. covers only basic principles of the subject, which is supplemented with applied engineering skills by the National Power Training Institute.

(e) The working of the NPTI is reviewed from time to time by the Governing Council of the Institute. Secretary, Ministry of Power is the Chairman of the Governing Council of the Institute. The working of the Institute is also reviewed in the Annual Meeting of the General Body of the Institute.

Cost of Electricity Generation

2810. SHRI TULASIDAS MAJJI:
DR. SHRIKANT RAMCHANDRA JICHKAR:

Will the Minister of POWER be pleased to state:

(a) what is the per unit cost of production of hydel, thermal, nuclear, solar and tidal electricity, separately; and

(b) what type of electricity generation is being encouraged?

THE MINISTER OF STATE IN THE MINISTRY OF POWER (SHRI P.V. RANGAYYA NAIDU): (a) The average cost of generation during 1992-93 in respect of Thermal & Hydel power stations, on a All India basis, was as under:—

Thermal	—	95.63 paise/Kwh.
Gas	—	81.32 paise/Kwh.
Hydel	—	20.68 paise/Kwh.

The tariffs for electricity supplied by Nuclear Power Plants in India in India as of June, 1994 are as under:—

Station	Tariff (Paise/Kwh.)
Tarapur Atomic Power Station	63.31
Rajasthan Atomic Power Station	64.81
Madras Atomic Power Station	79.23
Narora Atomic Power Station	146.66
Kakrapar Atomic Power Station	207.45

The average cost of per unit electricity production from solar photovoltaic has been estimated to be about Rs. 12 taking average solar insolation and 20 years life of solar photovoltaic modules. From solar thermal and tidal, electricity generation is at a conceptual stage and actual per unit cost will be known only after such plants are set up.

(b) In order to meet the increasing deamnd for electricity and to reduce the gap in demand and supply of power, Government has been taking measures to encourage electricity generation from various available sources such as thermal, hydel, non-conventional sources etc.

Proposals For Power Projects With Central Electricity Authority

2811. SHRI BALBIR SINGH:
SHRI DIPANKAR MUKHERJEE:

Will the Minister of POWER be pleased to state:

(a) the names of power projects for which project reports have been submitted by the NTPC, SEBs and the Private Sector Companies to the Central Electricity Authority for techno-economic